APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,681	11/24/2003	Ravi Ravindran	9-13528-203US	1251

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EXAMINER
SMITH, CREIGHTON H

ART UNIT	PAPER NUMBER
2614	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

	Application No.	Applicant(s)
Office Action Summary	10/718,681	RAVINDRAN ET AL.
	Examiner	Art Unit	
	Creighton H. Smith	2614	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☐ Responsive to communication(s) filed on _____ .

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-20* is/are pending in the application.

     4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-5 and 7-18* is/are rejected.

7) ☒ Claim(s) *6 and 20* is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

     a) ☐ All   b) ☐ Some * c) ☐ None of:

       1. ☐ Certified copies of the priority documents have been received.

       2. ☐ Certified copies of the priority documents have been received in Application No. _____ .

       3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

     * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-SB/08)
Paper No(s)/Mail Date <u>24 NOV '03</u>.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

In response to this Office action, applicants are required to furnish the missing

information in ¶-0007 on page 3 of the spec., i.e., the filing date and serial number.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5 and 7-19 are rejected under 35 U.S.C. 102(E) as being anticipated by

Acharya et al, U.S. Patent Publication #2004/0228323 or Wang et al, U.S. patent

#6724722.

Acharya et al disclose a routing computation algorithm that includes both a route

generation phase (14A, Fig. 2) and a route selection phase (14B-, Fig.2), and

determines one or more routes between a pair of network nodes, Abstract. Acharya et

al route selection phase uses the Shortest-Widest Path (SWP) algorithm, Abstract.

In Figs. 1A-1C Acharya et al desires to route data traffic between nodes S & D,

which reads upon applicants' client network elements (10a, 10b). In ¶-0032 Acharya et

al disclose, as an example, that all the edges have a unit cost and capacity of 10 units.

These edge costs and capacity are the metric information.

Fig. 4 shows one of the nodes 56-i of network 52, ¶-0067. Node 56-I supplies

signals to three other nodes via output links 66, ¶-0067. Node 56-I includes a database

(76) for storing demands for network capacity, and a set of routing tables which specifies routing routes through the network for particular demands, ¶-00068. In ¶-0064 Acharya et al disclose that a central controller 54 and nodes 56-I may each represent a computer, server, router, gateway or other processor programmed to provide the route pre-computation techniques as disclosed in Fig. 2.

Therefore, either central controller 54 or individual nodes 56-I will receive from each network element resource availability information associated with the available routes between the network elements. This is the route generation phase of Acharya et al algorithm. Applicants' underline transforming step of claim 1 is met by Acharya et al route selection phase (14B).

For claim 2, Acharya et al spanning tree of Figs. 1a-1C meets applicants' claim language.

For claim 3, Acharya et al disclose in ¶-0025 that their embodiment is configured to improve the quality of routes for bandwidth guaranteed traffic by determining the particular routes which should be computed. In ¶-0040 Acharya et al disclose that each materialized route is stored along with the permissible bandwidth (BW) that can be routed along the way, and in ¶-0055 Acharya et al disclose that their algorithm of Fig. 2 determines the route that will be used to satisfy the BW demand. The overall concern of Acharya et al is to satisfy the BW demand along the route/path selected because if the BW demand is not met then the data flow will not reach the destination properly to satisfy the client's request for data. As a secondary concern of Achraya et al, and this is mentioned only once in the spec. in ¶-0032 is the cost.

Claim 11 is deemed met by Acharya et al because as BW demand in any of the links

is increased/decreased this change will be reported to the controller in order to re-

compute the algorithm of Fig. 2.

Wang et al similarly disclose in col. 2, lines 58 et seq. a method of managing traffic

flow across links of an information network includes monitoring traffic demands from a

source node to a destination node (the same elements as applicants' CNE), including

BW associated with each of the traffic demands, and determining for each traffic

demand, and for a given link of the network, that portion of the BW associated with each

traffic demand which portion is provided by the given link. Traffic demands are routed

across the links of the network in such a manner as to minimize the maximum value of

the link utilization (bandwidth). In claim 11, Wang et al disclose that their routing

procedure is a hybrid routing procedure with the cost metric associated with the link

utilization (BW).

Claims 6 and 20 are objected to as being dependent upon a rejected base claim,

but would be allowable if rewritten in independent form including all of the limitations of

the base claim and any intervening claims.

Any inquiry concerning this communication should be directed to Creighton H.

Smith at telephone number 571/272-7546.

06 AUG '07   Creighton H Smith
                                                     Primary Examiner
                                                     Art Unit 2614